

What is claimed is:

1. A device for extracting useful information from news information and presenting the information to a user, comprising:

a news information division unit breaking down the news information in units of articles;

a useful article selection unit selecting useful articles from the broken-down articles; and

a news information re-editing unit collecting the selected articles, re-editing the articles in a form of news information suited to be presented to a user and outputting the re-edited articles.

2. The device according to claim 1, wherein

said news information division unit detects article portions included in the news information by analyzing a document format of the news information and breaks down the article portions in units of articles.

3. The device according to claim 1, wherein

said useful article selection unit comprises:

an article grouping unit classifying the broken-down articles into a plurality of groups

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based on similarity degree among the broken-down articles;

an article group selection unit selecting one or more groups from the plurality of the groups based on topicality degree for indicating degree of topicality of each of the groups; and

a typical article selection unit selecting one or more articles from articles belonging to each of the selected groups and designating the articles as typical articles of the group.

4. The device according to claim 3, wherein

said article group selection unit calculates the topicality degree based on both total number of articles belonging to the group and total number of information sources of articles belonging to the group.

5. The device according to claim 3, further comprising

a user instruction input unit inputting the user's instructions on news information presenting, wherein said typical article selection unit selects one or more articles from articles belonging to each of the groups selected by the article group selection unit according to the instructions inputted to the user instruction input unit.

6. The device according to claim 5, wherein

5 said typical article selection unit selects one
or more articles from articles belonging to each of
the groups selected by the article group selection unit
according to the instruction on distribution date of
news information including the articles.

7. The device according to claim 3, wherein

10 said news information re-editing unit outputs
typical articles selected from the groups in an order
corresponding to topicality degree of a group selected
by the said article group selection unit.

15 8. The device according to claim 3, wherein

20 said news information re-editing unit outputs
the typical articles in an order corresponding to
distribution date of news information including
articles that are selected from groups selected by said
article group selection unit.

9. The device according to claim 7, wherein

25 said news information re-editing unit outputs
typical articles selected from groups selected by said
article group selection unit and also outputs other

typical articles selected from the groups as related articles.

10. The device according to claim 8, wherein

5 said news information re-editing unit outputs typical articles that are selected from groups selected by said article group selection unit and also outputs other typical articles selected from the groups as related articles.

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11. The device according to claim 3, wherein

 said news information re-editing unit outputs simplified typical articles obtained by omitting a part of contents of typical articles that are selected from the groups selected by said article group selection unit and sets up hyperlinks for indicating the location of the typical articles in the simplified typical articles.

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20 12. The device according to claim 3, wherein

 said news information re-editing unit outputs typical articles that are selected from the groups selected by said article group selection unit and also outputs graphics included in the typical articles.

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13.The device according to claim 3, wherein

5 said news information re-editing unit converts
contents of typical articles that are selected from
the groups selected by said article group selection
unit into a form suited for loud reading and outputs
the converted contents.

14.The device according to claim 13, wherein

10 said news information re-editing unit outputs
only titles of typical articles that are selected from
the groups selected by said article group selection
unit.

15 15. A device for extracting useful information from
news information and presenting the information to a
user, comprising:

information division means for breaking down the
news information in units of articles;

20 useful article selection means for selecting
useful articles from the broken-down articles; and

news information re-editing means for collecting
the selected articles, and re-editing the articles in
a form of news information suited to be presented to
a user and outputting the re-edited articles.

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16. The device according to claim 15, wherein

said useful article selection means comprises:

article grouping means for classifying the
broken-down articles into a plurality of groups
based on similarity degree among the broken-down
articles;

article grouping selection means for
selecting one or more groups from the plurality
of groups based on topicality degree for
indicating degree of topicality of the group;
and

typical article selection means for
selecting one or more articles from articles
belonging to each of the selected groups and
designating the articles as typical articles of
the respective group.

17. A method for extracting useful information from
news information and presenting the information to a
user, comprising:

breaking down the news information in units of
articles;

selecting useful articles from the broken-down
articles; and

collecting the selected articles, and re-editing

the articles in a form of news information suited to be presented to a user and outputting the reedited articles.

- 5 18. The method according to claim 17, wherein
said selection of useful articles comprises:
classifying the broken-down articles into
a plurality of groups based on similarity degree
among the broken-down articles;
10 selecting one or more groups from the
plurality of groups based on topicality degree
for indicating the degree of topicality of the
group; and
selecting one or more articles from
15 articles belonging to each of the selected groups
and designating the articles as typical
articles.

19. A computer-readable storage medium on which is
20 recorded a program to direct a computer to extract
useful information from news information and to present
the extracted information to a user, said program
directing the computer to execute the processes of:
breaking down the news information in units of
25 articles;

selecting useful articles from the broken-down articles; and

collecting the selected articles, re-editing the articles in a form of news information suited to be presented to a user and outputting the re-edited articles.

20. The storage medium according to claim 19, wherein said process of selecting useful articles comprises the processes of:

classifying the broken-down articles into a plurality of groups based on similarity degree among the broken-down articles;

selecting one or more groups from the plurality of groups based on topicality degree for indicating the degree of topicality of the group; and

selecting one or more articles from articles belonging to each of the selected groups and designating the articles as typical articles.

21. A computer data signal embodied in a carrier wave and representing a program to direct a computer to extract useful information from news information and

to present the information to a user, said program directing the computer to execute the processes of:

breaking down the news information in units of
articles;

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5         selecting useful articles from the broken-down
        articles; and
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collecting the broken-down articles, re-editing
the articles in a form of news information suited to
be presented to a user and outputting the reedited
10 articles.

22. The computer data signal according to claim 21,
wherein said process of selecting useful articles
comprises the processes of:

15 classifying the broken-down articles into
a plurality of groups based on similarity degree
among the broken-down articles;

20 selecting one or more groups from the
 plurality of groups based on topicality degree
 for indicating the degree of topicality of the
 group; and

selecting one or more articles from
articles belonging to each of the selected groups
and designating the articles as typical
25 articles.